Listing of the Claims

1. (Original) A method comprising:
in response to a request to perform a set of operations on a plurality of logical volumes,

identifying a first storage region of a plurality of storage regions to allocate for a

first operation of the set of operations on a first logical volume of the

plurality of logical volumes; and

determining whether a second operation of the set of operations can be performed

on a second logical volume of the plurality of logical volumes using a

subset of the plurality of storage regions, wherein

the subset excludes the first storage region.

2. (Original) The method of claim 1 further comprising:
if the second operation cannot be performed using the subset of the plurality of storage

regions,

identifying a third storage region of the plurality of storage regions to allocate for

the first operation, and

determining whether the second operation can be performed using a second subset

of the plurality of storage regions, wherein

the second subset excludes the third storage region.

3. (Original) The method of claim 2 further comprising:
if the first storage region is allocated for the first operation on the first logical volume,

de-allocating the first storage region, and

including the first storage region in the second subset prior to determining

whether the second operation can be performed.

4. (Previously Presented) The method of claim 1 further comprising:
identifying a respective set of rules to configure each respective logical volume of the

plurality of logical volumes prior to identifying the first storage region, wherein

the respective set of rules for each respective logical volume is used to identify a

respective storage region to allocate for the respective logical volume.

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5. (Original) The method of claim 4 wherein

the determining whether the second operation can be performed comprises

examining a second respective set of rules for the second logical volume.

6. (Previously Presented) The method of claim 1 further comprising:

determining a respective storage region to allocate for each respective operation of the set

of operations by

determining whether a remaining operation of the set of operations can be

performed using an unallocated subset of the plurality of storage regions,

wherein

the remaining operation excludes the respective operation,

the unallocated subset excludes the respective storage region, and

the unallocated subset excludes an allocated subset of the plurality of

storage regions, wherein

each storage region in the allocated subset is allocated to one of the

set of operations.

7. (Previously Presented) The method of claim 1 wherein

each operation of the set of operations is one type of operation.

8. (Previously Presented) The method of claim 1 wherein

a first operation of the set of operations is a first type of operation,

a second operation of the set of operations is a second type of operation, and

the first type and the second type are different.

9. (Previously Presented) The method of claim 1 wherein

the first storage region conforms to a first intent of the first logical volume.

10. (Original) The method of claim 9 wherein

the first intent comprises a first rule used to configure the first storage region to provide

the first logical volume.

11. (Previously Presented) The method of claim 1 further comprising:

performing the first operation on the first logical volume using the first storage region.

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12.   (Previously Presented) The method of claim 1 wherein
one operation of the set of operations is one of the following:

　　　creating the first logical volume;

　　　growing the second logical volume; and

　　　adding a mirror to a third logical volume of the plurality of logical volumes.

13.   (Previously Presented) A computer-readable storage medium for storing
computer executable instructions, wherein a method is performed in response to
executing the instructions, the method comprising:
in response to a request to perform a set of operations on a plurality of logical volumes,

　　　identifying a first storage region of a plurality of storage regions to allocate for a
　　　　　first operation of the set of operations on a first logical volume of the
　　　　　plurality of logical volumes; and

　　　determining whether a second operation of the set of operations can be performed
　　　　　on a second logical volume of the plurality of logical volumes using a
　　　　　subset of the plurality of storage regions, wherein the subset excludes the
　　　　　first storage region.

14.   (Previously Presented) The computer-readable storage medium of claim 13
　　　wherein the method further comprises:
if the second operation cannot be performed using the subset of the plurality of storage
regions,

　　　identifying a third storage region of the plurality of storage regions to allocate for
　　　　　the first operation, and

　　　determining whether the second operation can be performed using a second subset
　　　　　of the plurality of storage regions, wherein
　　　　　the second subset excludes the third storage region.

15.   (Previously Presented) The computer-readable storage medium of claim 14
　　　wherein the method further comprises:
if the first storage region is allocated for the first operation on the first logical volume,

　　　de-allocating the first storage region, and

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including the first storage region in the second subset prior to determining

whether the second operation can be performed.

16. (Previously Presented) The computer-readable storage medium of claim 13 wherein the method further comprises:

identifying a respective set of rules to configure each respective logical volume of the plurality of logical volumes prior to identifying the first storage region, wherein the respective set of rules for each respective logical volume is used to identify a respective storage region to allocate for the respective logical volume.

17. (Previously Presented) The computer-readable storage medium of claim 16 wherein

the determining whether the second operation can be performed comprises examining a second respective set of rules for the second logical volume.

18. (Previously Presented) The computer-readable storage medium of claim 13 wherein the method further comprises:

determining a respective storage region to allocate for each respective operation of the set of operations by

determining whether a remaining operation of the set of operations can be performed using an unallocated subset of the plurality of storage regions, wherein

the remaining operation excludes the respective operation,

the unallocated subset excludes the respective storage region, and

the unallocated subset excludes an allocated subset of the plurality of storage regions, wherein

each storage region in the allocated subset is allocated to one of the set of operations.

19. (Previously Presented) The computer readable storage medium of claim 13 wherein

each operation of the set of operations is one type of operation.

20. (Previously Presented) The computer-readable storage medium of claim 13 wherein

a first operation of the set of operations is a first type of operation,

a second operation of the set of operations is a second type of operation, and

the first type and the second type are different.

21. (Previously Presented) The computer-readable storage medium of claim 13 wherein

the first storage region conforms to a first intent of the first logical volume.

22. (Previously Presented) The computer-readable storage medium of claim 21 wherein

the first intent comprises a first rule used to configure the first storage region to provide the first logical volume.

23. (Previously Presented) The computer-readable storage medium of claim 13 wherein the method further comprises:

performing the first operation on the first logical volume using the first storage region.

24. (Previously Presented) The computer-readable storage medium of claim 13 wherein

one operation of the set of operations is one of the following:

creating the first logical volume;

growing the second logical volume; and

adding a mirror to a third logical volume of the plurality of logical volumes.

25. (Previously Presented) A computer-readable storage medium that stores instructions executable by a computer system, wherein the computer system implements a method in response to executing the instructions, the instructions comprising:

a first set of instructions configured to receive a request to create first and second logical volumes, wherein

the first and second logical volumes are required to have first and second storage structures, respectively, and first and second storage quantities, respectively;

a second set of instructions configured to select a first collection of physical memory regions;

a third set of instructions configured to allocate the first collection of physical memory regions to create the first and second logical volumes;

a fourth set of instructions configured to determine whether the first and second logical volumes have the first and second storage quantities, respectively, and the first and second storage structures, respectively;

a fifth set of instructions configured to select a second collection of physical memory regions, wherein the second collection is different from the first collection, if the first and second logical volumes do not have the first and second storage quantities, respectively, and do not have the first and second storage structures, respectively.

26. (Previously Presented) The computer readable storage medium of claim 25 wherein the instructions further comprise:

a sixth set of instructions configured to allocate the second collection of physical memory regions to create new first and second logical volumes;

a seventh set of instructions configured to determine whether the new first and second logical volumes have the first and second storage quantities, respectively, and the first and second storage structures, respectively.